REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested. Claims 1-2 and 12 are amended, new claim 13 is added, and Claims 1-13 are pending in the application.

The objection to the title ("ARRANGEMENT FOR REDUCING APPLICATION EXECUTION BASED ON A DETERMINED LACK OF FLOW CONTROL CREDITS FOR A NETWORK CHANNEL") is respectfully traversed. The title is, in fact, clearly indicative of the invention to which the claims are directed, since claim 1 specifies "detecting a depletion of flow control resources" and "reducing ... the prescribed data stream by reducing execution of a prescribed application resource configured for generating the prescribed data stream." Further, the Examiner has failed to explain how the title is not descriptive. Applicant respectfully requests either that the objection be withdrawn, or that the Examiner suggest a proposed change under MPEP 606.01.

Claims 2 and 12 have been amended to eliminate the informality regarding antecedent basis for "depletion of flow control credits".

Claims 2 and 12 are rejected under 35 USC §112, second paragraph because on "the presence of the trademark or trade name 'InfiniBand™". This rejection is respectfully traversed. Recitation of industry standards such as "InfiniBand™" in the claims has been deemed acceptable by the USPTO. For example, the attached Exhibit A is a printout from the USPTO website that lists 35 issued patents reciting "InfiniBand" within their claims.

Further, Section 2173.05(u) of the MPEP (Rev. 2, May 2004) explicitly states that "[t]he presence of a trademark or trade name in a claim is not, *per se*, improper under 35 U.S.C. 112, second paragraph" and cites *Ex parte Simpson* only for the instance where a trademark is used in a claim to identify or describe a particular material or product. *See Ex parte Simpson*, 218 1020, 1021-22 (Bd. Pat. App. & Inter. 1992) (claim scope uncertain as to material which forms the "Hypalon" membrane: question as to how much chlorosulphonated polythene must be present before infringement occurs).

The Examiner's suggestion that the trademark is used to identify "InfiniBand™" as a

claimed material or product is not accurate: the claims specify outputting a data stream "according to InfiniBand™ ***protocol***". Hence, the use of the trademark is not to identify a particular material or product, but rather is used to identify a ***source*** of the identified protocol, namely the InfiniBand™ Architecture Specification adopted by the InfiniBand™ Trade Association (see, page 1 of the specification).

Hence, the claims specify outputting the prescribed data stream according to an identifiable protocol, where the protocol is identified by the trade association having proprietary rights to its name: infringement would be determined based on whether the claimed function (outputting the prescribed data stream) was performed according to the protocol promulgated by the InfiniBand™ Trade Association (namely the the InfiniBand™ protocol).

Consequently, *Ex parte Simpson* is distinguishable because the claims do not use the trademark to attempt to identify a particular material or product, but rather use the trademark to identify the protocol used by the claimed network node.

Moreover, the subject claims do not claim the protocol referred to as InfiniBand™ per se, but rather specify communication operations according to the InfiniBand™ protocol. One having ordinary skill in the art would appreciate that the InfiniBand™ protocol specifies a logical sequence of events that are to occur in order to reach a certain result.

Further, one skilled in the art would appreciate that the reference to the industry standards in the specification and claims refers to the industry standards as of the July 16, 2001 filing date of the application. The subject application history includes *numerous* cited references that describe InfiniBand™ in detail, including the cited documents by Cassiday, Pekkala et al., Susnow et al., Kagan, Biran et al., etc..

Hence, one skilled in the art would recognize that the claims should be interpreted as performing operations or functions consistent with the industry standard in effect as of the filing date of the application. Any subsequent changes in the standard are not relevant, since (1) they are not related to the claimed function; (2) they are consistent with the industry standard in effect as of the filing date; or (3) they are not within the scope of the invention to the extent that the subsequent changes are inconsistent or supersede the industry standard in effect as of the filing

date of the application.

Further, the MPEP not only permits use of trademarks having definite meanings in patent claims, but requires that the proprietary nature of the marks be respected (see, e.g., MPEP §608.01(v) at pages 600-87 to 600-88 (Rev. 2, May 2004)).

For these and other reasons, the §112, second paragraph rejection should be withdrawn.

Claims 1-12 stand rejected under 35 USC §102(e) in view of U.S. Patent Publication No. 2002/0085493 by Pekkala et al. This rejection is respectfully traversed.

Each of the independent claims 1 and 7 specify reducing a prescribed data stream in a network node by reducing execution of a prescribed application resource configured for generating the prescribed data stream. In particular, each independent claim specifies that each of the features of detecting a depletion of flow control resources, outputting a data flow interruption request based on the detected depletion of flow control resources, and reducing execution of the prescribed application resource that generates the prescribed data stream, ***are performed in the same network node***.

As described in the specification, an arbitrary hardware implementation of flow control in a network node may result in interruption of data flows and dropped packets between the processor and the network interface, resulting in poor utilization of memory and processor resources.

Each of the independent claims 1 and 7, however, are directed to operations ***within a network node*** to respond to a detection of flow control resources by reducing, by the processor ***in the network node***, the prescribed data stream by reducing execution of the prescribed application resource configured for generating the prescribed data stream.

Hence, the supply of data for the data packets is reduced based on the reduced execution of the prescribed application resource, enabling flow control protocols to be maintained while preserving processor and memory resources for other application resources (see page 3, lines 8-10). Moreover, network congestion can be resolved without the necessity of wasting resources by dropping packets generated by the processor and stored in a system memory (page 3, lines 22-24). Hence, processor resources and system memory can be redirected to unaffected

application resources, optimizing efficiency in the network node (page 11, lines 25-26).

These and other features are neither disclosed nor suggested in the applied prior art.

Pekkala et al. provides no disclosure or suggestion whatsoever for how a transmitting network node should respond to a depletion of flow control credits. Rather, Pekkala et al. simply describes that a link partner is "shut down" based on the receiving device advertising to the link partner that zero credits are available (see, for example, paragraph 74, lines 21-23).

Further, Pekkala et al. simply describes that the flow control logic"stops" the link partner transmitter from transmitting packets to the destination port:

> The link partner 752 [of Fig. 7] also includes flow control logic 706 coupled to the receiver 702 and transmitter 704. The link partner 752 flow control logic 706 receives flow control packets 500 from the link partner 752 receiver 702 and provides flow control packets 500 to the link partner 752 transmitter 704. Among other things, **the link partner 752 flow control logic 706 responds to flow control packets 500 received from the port 608 advertising zero credits, and *responsively stops the link partner 752 transmitter 704 from transmitting IB data packets* 300 to the port 608.**
>
> (Paragraph 84, lines 1-10 of Pekkala et al.).

Hence, Pekkala et al. simply describes that the flow control logic 706 responds to the depletion of flow control credits by halting transmission, and neither discloses nor suggests outputting by the network interface in the network node a data flow interruption request, and reducing by the processor in the same network node the prescribed data stream by ***reducing execution of the prescribed application resource that generates the prescribed data stream***, as claimed.

Hence, the rejection should be withdrawn because it fails to demonstrate that the applied reference discloses each and every element of the claim. See MPEP 2131. "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). "Anticipation cannot be predicated on teachings in the reference which are vague or based on conjecture." Studiengesellschaft Kohle mbH v. Dart Industries, Inc., 549 F. Supp. 716, 216 USPQ 381 (D. Del. 1982), aff'd., 726 F.2d 724, 220 USPQ 841 (Fed. Cir. 1984).

Hence, the rejection of independent claims 1 and 7 should be withdrawn.

Further, there is no disclosure or suggestion of the network interface outputting the claimed data flow interruption request is *based on* the detected depletion of network bandwidth that is identified in dependent claim 2 as the depletion of flow control credits.

Further, there is no disclosure or suggestion whatsoever of any memory controller that ***renders unavailable*** the system memory resources for the prescribed application resource in response to reception of the data flow interruption request, as specified in claims 3 and 8 (and new claim 13).

For these and other reasons, the §102 rejection should be withdrawn.

In view of the above, it is believed this application is and condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-0687, under Order No. 95-508, and please credit any excess fees to such deposit account.

Respectfully submitted,

Manelli Denison & Selter, PLLC

Leon R. Turkevich
Registration No. 34,035

Customer No. 20736
Date: May 4, 2005

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

Searching 1976 to present...

Results of Search in 1976 to present db for:
ACLM/InfiniBand: 35 patents.
*Hits **1** through **35** out of **35***

Jump To

Refine Search ACLM/InfiniBand

	PAT. NO.		Title
1	6,886,057	T	Method and system for supporting multiple bus protocols on a set of wirelines
2	6,829,715	T	Multiprotocol computer bus interface adapter and method
3	6,829,685	T	Open format storage subsystem apparatus and method
4	6,826,631	T	System and method for indicating the status of a communications link and traffic activity on non-protocol aware modules
5	6,820,171	T	Methods and structures for an extensible RAID storage architecture
6	6,813,676	T	Host interface bypass on a fabric based array controller
7	6,813,653	T	Method and apparatus for implementing PCI DMA speculative prefetching in a message passing queue oriented bus system
8	6,810,418	T	Method and device for accessing service agents on non-subnet manager hosts in an infiniband subnet
9	6,807,169	T	Dynamic private network
10	6,802,024	T	Deterministic preemption points in operating system execution
11	6,792,505	T	System apparatus and method for storage device controller-based message passing having effective data channel bandwidth and controller cache memory increase
12	6,789,167	T	Method and apparatus for multi-core processor integrated circuit having functional elements configurable as core elements and as system device elements
13	6,789,143	T	Infiniband work and completion queue management via head and tail circular buffers with indirect work queue entries
14	6,785,775	T	Use of a cache coherency mechanism as a doorbell indicator for input/output hardware queues
15	6,785,760	T	Performance of a PCI-X to infiniband bridge

16 6,766,412 T Data storage media library with scalable throughput rate for data routing and protocol conversion
17 6,763,419 T Storage router and method for providing virtual local storage
18 6,754,785 T Switched multi-channel network interfaces and real-time streaming backup
19 6,754,773 T Data engine with metadata processor
20 6,751,235 T Communication link synchronization method
21 6,747,997 T Network channel receiver architecture
22 6,735,660 T Sideband signal transmission between host and input/output adapter
23 6,735,645 T System and method to eliminate race conditions in input/output operations for high bandwidth architectures
24 6,725,388 T Method and system for performing link synchronization between two clock domains by inserting command signals into a data stream transmitted between the two clock domains
25 6,704,836 T Method for dynamic control of concurrent extended copy tasks
26 6,684,282 T System and method for adding an internal RAID controller
27 6,676,026 T System and method for autonomic environmental monitoring, adjusting, and reporting capability in a remote data storage and retrieval device
28 6,668,299 T Software interface between a parallel bus and a packet network
29 6,665,754 T Network for increasing transmit link layer core speed
30 6,654,824 T High-speed dynamic multi-lane deskewer
31 6,654,241 T High availability small foot-print server
32 6,594,712 T Inifiniband channel adapter for performing direct DMA between PCI bus and inifiniband link
33 6,591,310 T Method of responding to I/O request and associated reply descriptor
34 6,438,128 T Alternate use of data packet fields to convey information
35 6,400,730 T Method and apparatus for transferring data between IP network devices and SCSI and fibre channel devices over an IP network